

**SAT Report**Case Number: **P-18-0100**SAT Date: **02/06/2018**Created Date: **02/08/2018**Updated Date: **02/08/2018****CBI: Y****Consolidated PMN?****Related Cases:****Health Related Cases:****Ecotox Related Cases:****Chemical Structure:****Concern Levels:**

<u>Type</u>	<u>Level</u>	<u>Comments</u>
Health (1):	2	concern for sensitization, genotoxicity, developmental toxicity, Onco, Liver, Kidney
(2):		
Eco (1):	1	
(2):		

**PBT Ratings:**

<u>Persistence</u>	<u>Bioaccumulation</u>	<u>Toxicity</u>	<u>Comments</u>
3	1	2	

**Exposure Based Review:****Health:** N**Ecotox:** N**Routes of exposure:****Health:** Dermal Drinking Water Inhalation**Ecotox:** No releases to water**Fate:** 1 ;**P2Rec Comments:****Keywords:**

Irr- E S, Sens, Muta, Onco, Dev, Liver Kidney

**Summary of Assessment:****Fate:****Fate Summary:**

P-18-0100

FATE: MW = 1875 with 3.4% &lt; 500 and 25.8% &lt; 1000



S = Disp.

VP < 1.0E-6 torr at 25 °C (E)

BP > 400 °C (E)

H < 1.00E-8 (E)

POTW removal (%) = 90 via sorption

Time for complete ultimate aerobic biodeg > mo

Sorption to soils/sediments = v.strong

PBT Potential: P3B1

\*CEB FATE: Migration to ground water = negl

### **Health:**

#### **Hazard Assessment:**

Absorption: Parent molecule: Nil all routes, Low MW Fractions: Poor all routes based on P-chem properties. Based on multiple acrylate groups there is concern for irritation of eyes and skin, sensitization, genotoxicity, developmental toxicity, liver toxicity, kidney toxicity, oncogenicity.

#### **Original Test Data Text:**

PMN: Oral LD50 > 2000, Genotoxicity negative in vitro and in vivo, Positive sensitization in the mouse LLNA study

Analog: Dermal LD50 > 2000 mg/kg

### **Ecotox:**

<b><u>Test organism</u></b>	<b><u>Test Type</u></b>	<b><u>Endpoint</u></b>	<b><u>Predicted</u></b>	<b><u>Measured</u></b>	<b><u>Comments</u></b>
<b>Fish</b>	96-h	LC50	>100		
<b>Daphnid</b>	48-h	LC50	>100		
<b>Green Algae</b>	96-h	EC50	>100		
<b>Fish</b>	-	Chronic Value	>10		
<b>Daphnid</b>	-	Chronic Value	>10		
<b>Green Algae</b>	-	Chronic Value	>10		

**Ecotox Values Comments:**

Predictions are based on SARs for anionic polymers: [REDACTED]

[REDACTED] effective concentrations based on 100% active ingredients and mean measured concentrations; hardness <150 mg/L as CaCO<sub>3</sub>; and TOC <2.0 mg/L.

Factors	Most Sensitive Endpoint	Assessment Factor	CoC	Comments
Acute Aquatic:		5	20000	
Chronic Aquatic:		10	1000	
Factors	Values	Comments		
SARs	Anionic Polymers			
SAR Class	Polymer-anionic-[REDACTED]			
TSCA New Chemical Category	Polyanionic Polymers (& Monomers)			

**Ecotox Factors Comments:**

Environmental Hazard: Environmental hazard is relevant to whether a new chemical substance is likely to present unreasonable risks because the significance of the risk is dependent upon both the hazard (or toxicity) of the chemical substance and the extent of exposure to the substance. EPA estimated environmental hazard of this new chemical substance using hazard data on analogous chemicals. Based on these estimated hazard values, EPA concludes that this chemical substance has a low environmental hazard.

· Substance falls within the TSCA New Chemicals Categories of Polycationic polymers (& monomers)

· SAR chemical class of [REDACTED].

· Low hazard for the PMN and low molecular weight oligomers with an acute and chronic CoC of 20,000 ppb and 10,000 ppb, respectively

**SAT Chair:** William Irwin

**Fate assessor:** Wen Lee

**Ecotox assessor:** F. Jewett

**Health assessor:** Lemuel Russell